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Department Memorandum

Idaho Transportation Department


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TO: District Engineers (DEs)
Engineering Managers (EMs)
Design/Construction Engineers (DCEs)

Key Number(s)

FROM:  P.E.
Dan McElhinney
Chief Deputy | Chief Operating Officer

Program ID, County, Etc.


Dave Kuisti
Hwy Construction & Operations Division Administrator

RE: Setting Work Zone Speed Limits

This guidance has been produced by the Work Zone Safety Taskforce with representation from the Idaho Transportation Department (ITD), the Associated General Contractors (AGC), and the Federal Highway Administration (FHWA).

1. PURPOSE

1.1. Intent: This memo is meant to promote the uniform application of temporary speed limits in work zones, which is a critical component of safe construction and maintenance work zones. The further intent of this memo is to recognize the need for engineering judgement in the application of design and traffic standards for work zones and their accompanying speed limits.

2. DEPARTMENT PHILOSOPHY ON SELECTING SPEEDS

2.1. Guidance: Projects should strive to minimize the need for lowered speed limits. For public acceptance and to ensure voluntary compliance, speeds should be set as high as can be safely operated (up to the maximum upper limits below) given the conditions in the work zone. The Department values limiting speed reductions to only locations and timeframes where needed due to geometric constraints or when workers are in close proximity and exposed to traffic.

2.2. Guidance: Where speeds are lowered due to conditions that vary throughout the life of the project, or that vary by locations within the project, speed limits may need to be raised and lowered as often as multiple times per day or per week. Driver speed limit compliance due to signs alone is often inconsistent, so traffic must sense the need to slow down. Signing for lower-than-expected speeds tends to increase speed variability, erode speed limit credibility, and may decrease safety overall.

3. WORK ZONE SPEED UPPER LIMITS

3.1. Application: Interstate highways and non-interstate freeways temporarily changed in nature (such as crossed over in two-way/two-lane configuration or with other exposure to oncoming traffic without a normal median or barrier):

3.1.1. Standard: All Interstate highways and non-interstate freeways: maximum is the lower of 65 mph or the existing non-construction speed

3.2. Application: Interstate highways and non-interstate freeways with median or barrier separating opposing traffic is in place (such as lane or shoulder closures):

3.2.1. Standard: Rural Interstates: maximum is the lower of 75 mph or non-construction speed

3.2.2. Standard: Rural non-interstate freeways: maximum is the lower of 65 mph or non-construction speed

3.2.3. Standard: Urban interstates and non-interstate freeways: maximum is the lower of 65 mph or non-construction speed

3.3. Application: Other state highways

3.3.1. Standard: All non-freeway state highways: maximum is the lower of 65 mph or non-construction speed

4. CONSIDERATIONS FOR LOWER LIMITS

4.1. Guidance: Where reduced speed limits are unavoidable the work zone should be designed to accommodate traffic flow at the highest speed practicable. Speeds below the maximum upper limits may be considered when any of the following exist and cannot be practicably or effectively designed around in the temporary traffic control scheme:

4.1.1. Volume/Capacity (V/C) of available lanes as impacted (i.e. temporary reduced capacity) will exceed 0.90

4.1.2. Frequent construction trucks or equipment are entering or leaving the stream of traffic

4.1.3. Workers are unshielded within 30' of traffic, or barrier-shielded within 10' of traffic

4.1.4. Flaggers or temporary signals are present and controlling traffic

4.1.5. Night work lighting leads to glare or dark spots

4.1.6. Restricted-speed roadway geometry is in place

4.1.7. Reduced shy distance to objects exists

4.2. Guidance: When reduced speed limits are to be implemented, establish protocols for the reduction. The protocols should be included in the notice sent to law enforcement outlining the reduced speed limits to be implemented.

5. USE OF ENHANCED WARNING DEVICES AND VARIABLE SPEED LIMIT ZONES

5.1. Guidance: In areas of high congestion, or where construction leads to excessive queuing, consideration should be given to the use of enhanced devices or variable speed limit signs. Types of installations can include the following:

5.1.1. Use of night work as mitigation, or in conjunction with other installations

5.1.2. Queue detection and warning devices for slow or stopped traffic ahead

5.1.3. Transverse rumble strips on roadway or flashing beacons on warning signs

5.1.4. Variable speed limit signs with speed set by work zone activity and condition

This guidance on setting work zone speed limits will be incorporated into the next update of Idaho's Work Zone Safety and Mobility Program, last published in April 2018.